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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,526	02/21/2002	Henry L. Sterchi	723-1259	3040
27562	7590	09/29/2006	EXAMINER	
NIXON & VANDERHYE, P.C. 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			PAPPAS, PETER	
			ART UNIT	PAPER NUMBER
			2628	

DATE MAILED: 09/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/078,526	Applicant(s) STERCHI ET AL.	
	Examiner Peter-Anthony Pappas	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. While abstract ideas, natural phenomena and laws of nature are not eligible for patenting, methods and products employing abstract ideas, natural phenomena, and laws of nature to perform a real-world function may well be. For claims including such excluded subject matter to be eligible, the claim must be for a practical application of the abstract idea, law of nature, or natural phenomenon. Diehr, 450 U.S. at 187, 209 USPQ at 8 (“application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”); Benson, 409 U.S. at 71, 175 USPQ at 676 (rejecting formula claim because it “has no substantial practical application”). To satisfy section 101 requirements, the claim must be for a practical application of the § 101 judicial exception, which can be identified in various ways: the claimed invention “transforms” an article or physical object to a different state or thing; the claimed invention otherwise produces a useful, concrete and tangible result.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter (...the tag ... is invisible...) which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (p. 4-5, ¶ 7; p. 6-7, ¶ 10; p. 10, ¶ 24).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ventrella et al. (U.S. Patent No. 6, 545, 682) in view of Bickmore et al. (Pub. No. US 2003/0206170 A1).

7. In regards to claim 1 Ventrella et al. teaches a method and apparatus for creating, animating and rendering a user-controlled 3D avatar in a dynamic 3D virtual environment (column 2, lines 63-64; column 7, lines 60-62; column 9, lines 32-45; column 18, lines 24-27; Fig. 9) in real time (column 10, lines 7-11), wherein said avatar interacts with various stimuli (tags), within said virtual environment, when said stimuli occurs close (in proximity) to said avatar (column 19, lines 40-59; column 18, lines 13-34). Ventrella et al. teaches that at least one variable can be associated with said

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avatar (i.e. the orientation of said avatar) and that said variable can be used to influence a change in said user-controlled avatar (column 14, lines 45-67; column 17, lines 57-67).

Ventrella et al. teaches that avatar genotypes may be designed by, for example, the vendor of the simulation system or a third party vendor, to create a set of default or archetypal avatars. These archetypes may then be customized by the end users or used unmodified by the end users. To create a complex, highly realistic virtual world; however, it is desirable to have very large numbers (potentially thousands or millions) of unique avatars. Creating such an environment can be difficult if so many avatars (or avatar defaults or archetypes) must be created manually. One solution is to use a pseudorandom number generator to automatically assign the individual values for each gene of each avatar, in order to create a large, statistically diverse population of avatars (column 8, lines 32-49).

Ventrella et al. fails to explicitly teach assigning tag information to said tag. Bickmore et al. teaches defining an object (tag) and assigning avatar reference properties (tag information) to said object, wherein said reference properties designate a type of reaction (defined behavior) for an avatar (character) when, for example, it is dragged over (in proximity to) said object (p. 5, ¶ 61-64; p. 6, ¶ 69). It is noted said object is considered external to said avatar. Said avatar can be animated using a scripted animation sequence (i.e. stored in an avatar script file 520), as defined by user input (p. 4, ¶ 50-53). When said avatar is dragged over an object (within predetermined proximity to a tag) the location of said object and said avatar reference properties are

used to modify the animation of said avatar at run-time (p. 6, ¶ 69; p. 3, ¶ 42; p. 5, ¶ 66). It is noted that modifying said animation at run-time is considered to result in real-time animation.

Bickmore et al. teaches that the avatar 114 or 132 is used to allow the document author 110 or the avatar creator 130 to annotate the electronic document 112 with that avatar creator's personal views (p.3 , 38; Fig. 1). In operation, a new avatar context is created and all the required avatar definition and script files are loaded. When the document reader 140 clicks on an avatar link, the first behavior/avatar pair associated with the link is performed. If the document reader 140 drags the avatar 132 over a document object for which the avatar 132 has a defined behavior defined, the avatar 132 performs a DRAG_HANDLE behavior if that behavior has been defined (p. 6, ¶ 69; Fig. 1).

Bickmore et al. further teaches that the avatars can also interact with the document itself by, for example, selecting hypertext links in the document pages. This gives the avatars the ability to provide customized presentations, or "guided tours" of documents (p. 1, ¶ 11). Three other primitives allow the avatar to simulate mouse clicks on document objects, thus enabling the avatar to give a guided tour through a series of hypertext linked objects. These primitives all reference a named object on the document. For example, in HTML, the referenced name is that defined in the standard name property of the "A tag" (p. 5, ¶ 58). It is implicitly taught that selecting a hypertext link for navigation, as taught by Bickmore et al., would result in the display (animation) of new information, tied to said hypertext link, within an area of said hypertext link (i.e.

the display of a new page of information overlaid on a previous page after said hypertext link is selected).

It would have been obvious to one skilled in the art, at the time of the Applicant's invention, to incorporate the assignment of tag information to tags, as taught by Bickmore et al., into the method taught Ventrella et al., because Ventrella et al. teaches that stimuli can be prioritized using any reasonable criteria (column 19, lines 21-58) and thus by having a priority value directly assigned to a given stimuli, wherein said assignment is calculated in respect to the priority assignments assigned to respective stimuli of the same virtual environment, it would allow for a more realistic interaction between said stimuli and an avatar as a given stimuli would be able to override (via a set priority value) any other concurrently running stimuli imparting a weight to the significance of a given stimuli. For example, consider a virtual environment wherein a given avatar is placed within the boundaries of a burning forest. Such a scene would warrant careful consideration of the prioritization of stimuli in said virtual environment so that the stimuli (burning forest) when in close proximity to said avatar would take immediate priority over all other stimuli concurrently running in said virtual environment and ideally behoove said avatar to act accordingly and attempt to escape impending harm, regardless of any other surrounding stimuli and their respective priority settings.

While Ventrella et al. and Bickmore et al. each teach that separate entities (i.e. third party vendor, end user, document author, avatar creator, document reader) are involved in both the use and creation of said avatars said references fail to explicitly teach that the tag is invisible to the user. Official Notice is taken that both the concept

and the advantages of having said avatars setup by different people than those people who are to use said avatars, thus resulting in said user not having a hand in the setup of said avatars, are well known and expect in the art. Thus, it would have been obvious to one skilled in the art, at the time of the Applicant's invention, that either said end user or said document reader would not be the creators of said avatar, as is supported by the teachings of both references, because it is conventional in the art, especially in the field of video games, to have, for example, game designers or the like create characters for end users to use in a virtual environment, wherein said users are generally unable to modify the influence of surrounding stimuli on said avatars (i.e. said users would not know of the presence of a given tag or how the tag will affect the animation) simply because it would conflict with the scripting of many conventional games and would render said games non-functional.

8. In regards to claim 2 Ventrella et al. fails to explicitly teach detecting when the characters is no longer within the predetermined proximity to the tag and upon such detection, retuning to the scripted animation for the character. Bickmore et al. teaches detecting when said avatar is no longer over an object (DRAG_NOHANDLE is enabled) and upon such detection returns to the scripted animation (i.e. idle behavior, etc.) for the character (p. 5, ¶ 59; p. 6, ¶ 69). The motivation disclosed in the rejection of claim 1 is incorporated herein.

9. In regards to claim 3 Ventrella et al. teaches that the blending of animation scripts, at each frame of the output script, can be accomplished by computing a feature as a weighted function of said feature in the corresponding frames of each of the input

scripts (column 10, lines 11-21). It is noted that the process disclosed above is considered key framing and that in computer implementations of keyframing the process known as tweening, inbetweening and/or in-betweening is considered a component thereof. Ventrella et al. further teaches that skeletal bone rotations are determined by various sources and then modified, if appropriate, by the Inverse Kinematics (IK) module in the animation system (column 11, lines 6-9).

10. In regards to claim 4 Ventrella et al. teaches defining human-like reaction (based on personality traits) as the type of reaction and generating an animation that corresponds to said human-like reaction (column 5, lines 61-64; column 3, lines 23-25; columns 17-18, lines 32-67 and 1-34, respectively).

11. In regards to claim 5 Ventrella et al. teaches that the head of the avatar may be turned, for example, in response to a control input from the user or in response to some other stimuli that is independent of the user (column 18, lines 13-34). It is noted said animation is considered to be executed in real-time.

12. In regards to claim 6 Ventrella et al. teaches a plurality of tags at different locations in a virtual world (column 19, lines 21-34). Ventrella et al. fails to explicitly teach assigning tag information to each tag, wherein each tag causes a different dynamic animation sequence to be generated for the character when within a predetermined proximity thereto. The rationale disclosed in the rejection of claim 1 is incorporated herein (Bickmore et al. – p. 6, ¶ 69).

13. In regards to claim 7 Ventrella et al. teaches that the curiosity gene determines the tendency of the avatar to look, automatically toward a low-priority stimulus in the

absence of a high-priority stimulus (column 19, lines 20-34). Ventrella et al. fails to explicitly teach assigning a priority value to each tag. The rationale disclosed in the rejection of claims 2 and 6 are incorporated herein.

14. In regards to claim 8 the rationale provided in the rejection of claim 2 is incorporated herein.

15. In regards to claim 9 the rationale provided in the rejection of claim 3 is incorporated herein.

16. In regards to claim 10 the rationale provided in the rejection of claim 4 is incorporated herein.

17. In regards to claim 11 the rationale provided in the rejection of claim 5 is incorporated herein.

18. In regards to claim 12 the rationale disclosed in the rejection of claim 1 is incorporated herein.

19. In regards to claim 13 the rationale disclosed in the rejection of claim 7 is incorporated herein.

20. In regards to claim 14 the rationale provided in the rejection of claim 3 is incorporated herein.

21. In regards to claim 15 the rationale provided in the rejection of claim 4 is incorporated herein.

22. In regards to claim 16 the rationale provided in the rejection of claim 5 is incorporated herein.

Response to Amendment

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23. The prior 35 USC 112 first paragraph rejection has been withdrawn in lieu of Applicant's remarks.

24. In response to Applicant's remarks that Bickmore et al. is only directed to a 2D environment, while the respective claims are directed to a 3D environment it is noted that Ventrella et al. teaches a 3D environment and that Ventrella et al. in combination with Bickmore et al. are considered to read on the respective claim limitations. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

25. Applicant's remarks have been fully considered but are not deemed persuasive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter-Anthony Pappas whose telephone number is 571-272-7646. The examiner can normally be reached on M-F 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Peter-Anthony Pappas
Examiner
Art Unit 2628

PP


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SUPERVISORY PATENT EXAMINER